AND LAST BUT NOT LEAST...

Vitamins, minerals and secondary plant substances are important components of a healthy, balanced diet. They have their most beneficial effects in natural food, in combination with all ingredients. Nutritional supplements – including fruit and vegetable extracts – in contrast, cannot compensate for unbalanced eating habits and an unhealthy lifestyle.

A targeted nutritional supplementation can only make sense in individual cases. These include, for example, folic acid taken shortly before and in the early stages of pregnancy.
If there is an apparent lack of time for a balanced diet or doubts arise about the quality of the food on offer in supermarkets, many promisingly advertised nutritional supplements become interesting. But what actually are the benefits of vitamin pills and similar products?

**NUTRITIONAL SUPPLEMENTS ARE NOT MEDICATIONS!**

Nutritional supplements are legally defined as concentrates of nutrients or other substances, often in the form of capsules or tablets, which are intended to supplement the normal diet. Therefore, in legal terms, they are not medications but food. Unlike medications, which are intended to heal or prevent illnesses, nutritional supplements are not subject to any regulatory approval procedure, in which the benefits and risks are tested before they enter the market. Nutritional supplements may not be put up as medications or advertised with promises of healing.

**WHICH SUBSTANCES MAY BE ADDED TO NUTRITIONAL SUPPLEMENTS?**

The sole regulation at the European level deals with the type of vitamins, mineral substances and trace element compounds that may be added. No specifications exist to date regarding the maximum quantities. No specific regulations exist concerning the numerous other substances to be found in nutritional supplements. These include:
- plant preparations, so-called botanicals (such as ginkgo),
- secondary plant compounds (such as phytoestrogens),
- amino acids and their compounds (such as L-carnitine, glucosamine),
- natural oils (such as fish oil, evening primrose oil),
- products of animal origin (such as shark cartilage, mussel extracts),
- algae, gelatine...

These other substances are consumed in nutritional supplements in a concentrated/isolated form and cannot categorically be assumed to be harmless. The Consumer Advice Centres therefore demand that:
- manufacturers prove that a nutritional supplement presents no health risk to any population group (including potential risk groups), before they enter the market (positive lists required!).
- manufacturers prove the benefits promised for the product.

The European legislative body has reacted to the wide range of foods with unproven health claims by adopting the Regulation on Nutritional and Health Claims. It is intended to ensure that health claims can only be made if the advertised benefits have been proven. But there is a catch here: So far, the European Commission has only approved specific statements on vitamins and minerals as well as a few other substances. The large number of advertising promises relating to herbal substances have so far remained unevaluated and may currently still be used.

**THE FAIRY TALE OF THE UNDERSUPPLY OF VITAMINS**

Providers of nutritional supplements often fuel consumer fears of them not being sufficiently provided with vital nutrients. Fruits and vegetables, for instance, are supposedly lower in nutrients Nowadays than they used to be due to depleted soils as a result of intensive farming methods. The reality, however, is rather different: neither are the soils depleted, nor does food contain fewer nutrients. Germany is not a vitamin-deficient country.

**RISKS AND SIDE-EFFECTS**

Despite being legally classified as such, nutritional supplements in fact differ from conventional food products. As they contain nutrients in a concentrated/isolated form, overdoses are more likely. For example, it has long since been known that the intake of additional amounts of beta-carotene by smokers may facilitate lung cancer. If women take too much vitamin A during the initial weeks of pregnancy, they risk developmental disorders in the child. Products containing high levels of antioxidative vitamins A, C and E for protection against cardiovascular diseases are also not recommended. Certain trace elements, such as iron, should only be taken in the event of a proven deficiency and only after consultation with a doctor, due to the risks associated with an uncontrolled intake. In addition, an excess of individual nutrients can interfere with the absorption of other nutrients (calcium and magnesium; plant sterols and fat-soluble vitamins). Furthermore, interactions with medication are possible – for example, iron blocks the absorption of the thyroid hormone thyroxine if taken at the same time. Persons wishing to take nutritional supplements in addition to their medication should therefore always consult their doctor or pharmacist beforehand.

**ADULTERATED NUTRITIONAL SUPPLEMENTS ON THE INTERNET**

At first sight, nutritional supplements, often advertised as purely herbal, appear to be natural and harmless. In fact: It is these preparations in particular, which are sold via the internet, that can contain substances hazardous to health, some of them having strong pharmacological effects. Often these preparations are only exposed by chance; either by random testing or when health damage occurred after intake.